CLAIM AMENDMENTS

1. (Canceled).

2. (Currently amended) Cooling system as claimed in ~~Claim 1~~ Claim 20, wherein the air inlets are provided on a front side, as seen in a direction of travel, beneath the transmission case in the covering panel part of the undercarriage, and wherein air outlet openings are provided at the rear beneath the engine housing in ~~an~~ the installation space.

3. (Original) Cooling system as claimed in Claim 2, wherein the air inlets are provided in a front area beneath the transmission case over a large area in the covering panel part, and wherein the air outlet openings are provided in a rear area of the engine housing.

4. (Currently amended) Cooling system as claimed in ~~Claim 1~~ Claim 20, wherein at least one additional air inlet opening, defining an oncoming flow channel, is provided behind the air inlets, as seen in a direction of travel, in the covering panel part of the undercarriage, and is directed at a differential of the transmission.

5. (Currently amended) Cooling system as claimed in ~~Claim 1~~ Claim 20, and further comprising a scavenging air blower provided for the engine at the

top in an installation space, and wherein said scavenging air blower has a compressed air inlet supply which acts upon the warmer air layer zone.

6. (Original) Cooling system as claimed in Claim 2, wherein the cold air layer zone can be enlarged as a function of the driving speed of the vehicle and can increase in size upward due to air flowing into the installation space through the air inlets, displacing the hot air layer zone upward, and wherein an outward flow of hot air on the engine side through the air outlet openings can be achieved.

7-19. (Canceled)

20. (New) Cooling system for an automotive drive unit, in particular for a drive unit such as an internal combustion engine situated in a rear end of a vehicle with a respective transmission, comprising a covering panel part situated beneath the drive unit as part of a covering undercarriage of a vehicle superstructure, wherein inflowing air fed to a transmission case via air inlets in the covering panel part of the undercarriage and a hot air layer zone formed on an engine side are superimposed so as to create a cold air layer zone, wherein a temperature interface develops between the hot and cold air layer zones, thus extending temporarily a surface in an area of upper limits of the transmission case and across a lower partial region of a rear engine housing arranged behind the transmission case, wherein air outlet openings are provided in the covering panel for removing air and an intake fan is located in an installation space above

the engine for providing cold air inflow, and wherein the cold air inflow pressurizes the hot air layer zone.

21. (New) Cooling system as claimed in Claim 3, wherein at least one additional air inlet opening, defining an oncoming flow channel, is provided behind the air inlets, as seen in a direction of travel, in the covering panel part of the undercarriage, and is directed at a differential of the transmission.

22. (New) Cooling system as claimed in Claim 2, and further comprising a scavenging air blower provided for the engine at the top in an installation space, and wherein said scavenging air blower has a compressed air inlet supply which acts upon the warmer air layer zone.

23. (New) Cooling system as claimed in Claim 3, and further comprising a scavenging air blower provided for the engine at the top in an installation space, and wherein said scavenging air blower has a compressed air inlet supply which acts upon the warmer air layer zone.

24. (New) Cooling system as claimed in Claim 4, and further comprising a scavenging air blower provided for the engine at the top in an installation space, and wherein said scavenging air blower has a compressed air inlet supply which acts upon the warmer air layer zone.

25. (New) Cooling system as claimed in Claim 3, wherein the cold air layer zone can be enlarged as a function of the driving speed of the vehicle and can increase in size upward due to air flowing into the installation space through the air inlets, displacing the hot air layer zone upward, and wherein an outward flow of hot air on the engine side through the air outlet openings can be achieved.